

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,235	10/19/2001	Scott A. Rice	C01-02	7870

7590

03/24/2004

D. Michael Burns
Acushnet Company
333 Bridge Street
Fairhaven, MA 02719

EXAMINER

DUONG, THANH P

ART UNIT	PAPER NUMBER
----------	--------------

1764

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/038,235

Applicant(s)

RICE, SCOTT A.+

Examiner

Tom P Duong

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-18 and 21-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-18 and 21-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 1764

DETAILED ACTION

In view of the appeal brief filed on January 15, 2004, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1, 5-18, and 21-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 13, 15, and 17, the claims recite "the wall of the insert has a uniform thickness between...inches and ...inches" are indefinite and inaccurate. It appears that the wall of the insert either has a variable thicknesses or a uniform thickness. Herein,

Art Unit: 1764

it best understood by examiner that the wall of the insert has a variable thickness.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5-6, 9-12, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ezawa et al. (6,334,817). Regarding claims 1 and 5, Ezawa et al. discloses a golf club head 10 comprising a hollow body 11 having a face 12 welded to the body; a body include a heel portion, a toe portion, a crown portion, a sole plate, skirt portion (Figures 1-2). The face securing opening 11b of Ezawa 817' with transition junction provides securing and supporting means to the face 12 and such face securing opening constitutes the face perimeter of the claimed invention. With respect to the dimension of the opening 11b, Ezawa does not disclose expressly the dimension of the opening 11b but it appears that Ezawa's opening 11b have sufficient transition length and thickness to support the face, and permits the face 12 to be properly welded to the securing opening 11b and thus, it would have been obvious in view of Ezawa to one having ordinary skill in the art to provide a securing opening with at least about 0.20 inch or at most thru routine optimization from either the transition junction at the upper

Art Unit: 1764

section or the lower section in order to provide proper support to the face 12 and proper welding of the securing opening with the face 12. Regarding claims 6, 10 and 12, Ezawa discloses the main head body can be cast (Col. 2, lines 41-45) and also the golf club of the prior art can be made of various titanium alloys (Col. 1, lines 27-30) and it would have been obvious to use Ti-Alloy here to provide structural strength and corrosion resistance. Regarding claims 9, 11, and 14, it is conventional for golf club manufacturer to fabricate a golf club head with a volume of 350-500 cc and it would have been obvious to do so here to increase the sweet spot area. Regarding claim 16, it is conventional to provide a loft angle equal to or greater than 13° and it would have been obvious to do so here to control spin and flight distance. Note, typically a higher loft angle provides a golf ball with higher trajectory and more spin, but reduced in flight distance upon ball impact, and a lower loft angle will provide lower trajectory and less spin, but increased in flight distance.

3. Claims 7-8, 13, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ezawa et al. '817 in view of Noble et al (5,954,596) and Kosmatka (6,338,683). Ezawa 817' does not disclose the insert having variable thickness and at least two radii of curvature. Noble et al. teaches the front wall 26 having an increased thickness T1 (0.130-0.180 inch) and decrease thickness at T2 (0.04-0.125) and T3 (0.04-0.125) and such configuration provide good reinforcement to the striking face and maximize mass distribution. (Col. 3, lines 51-52, Col. 4, lines 1-5). Alternatively, Kosmatka teaches the contoured striking

Art Unit: 1764

face 32" (Col. 4, lines 57-65) improves coefficient of restitution. Thus, it would have been obvious in view of Noble and Kosmatka to one having ordinary skill in the art to include a variable thickness striking face in Ezawa's invention to provide a golf club with good reinforcement to the striking face and/or improve coefficient of restitution.

4. Claims 18 and 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ezawa et al. (6,334,817) in view of Karsten (5,310,186) and Masghati et al. (4,471,961). Regarding claim 18, Ezawa discloses the claimed invention except a weight element disposed on the sole plate adjacent to the juncture of the heel and skirt portions. Karsten teaches a weight pad 28 located rearwardly of the first vertical plane A an intermediate the hosel 14 and the second vertical plane B (Col. 3, lines 1-9) and such weight pad increased resistance to horizontal rotation or twisting of the club head 10 upon ball impact (Col. 2, lines 59-68). Likewise, Masghati teaches the weights 93 and 94 increase the moment of inertia and reduce the club head tendency to rotate around the axis of rotation (Col. 6, lines 45-52). Thus, it would have been obvious in view of Karsten and Masghati to one having ordinary skill in the art to add weight(s) of Karsten and/or Masghati into Ezawa's sole plate to minimize rotation about the axis and to maintain the club head balance. Regarding claims 21 and 22, it appears that the weight pad of Karsten disposed at a distance greater than about 1.0 inch or 1.5 inches from the intersection point (See Fig. 1). Regarding claim 23, the prior art fails to disclose a weight element greater than 16 grams.

Art Unit: 1764

However, Ezawa discloses a weight pad between 5 and 15 grams and the upper range 15 grams of Ezawa is deemed to be obvious over 16 grams of the claimed invention. Note, the selection of the weight amount in designing the weight element or weight pad is depending on the size, dimension, material(s) of the club head and it would have been obvious in view of prior art to optimize the weight amount in the weight element to provide a golf club with maximum moment of inertia and minimum rotation about the axis. Claims 24-29 recite limitations similar to claims 1, 5-18, and 21-23; thus, claims 24-29 are rejected for the same reasons as applied to claims 1, 5-18, and 21-23, above.

Response to Arguments

Applicant's arguments with respect to claims 1, 5-18, and 21-29 have been considered but are moot in view of the new ground(s) of rejection.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 6,458,043 discloses a golf club head with face member having various curvatures and face member with transition variable thicknesses.

Art Unit: 1764


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom P Duong whose telephone number is (571) 272-2794. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Duong
March 21, 2004


Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700